30. ON THE OCCURRENCE OF *SAURIDA ISARANKURAI* SHINDO AND YAMADA 1972 FROM THE WEST COAST OF INDIA

(With a text-figure)

A total of eight species of the genus Saurida Val. 1849, viz., Saurida tumbil (Bloch, 1795), Saurida gracilis Quoy and Gaimard, 1824; Saurida undosquamis (Richardson, 1848), Saurida longimanus Norman, 1939; Saurida micropectoralis Shindo and Yamada 1972, Saurida wanieso Shindo and Yamada, 1972, Saurida isarankurai Shindo and Yamada, 1972 and Saurida pseudotumbil Dutt and Vidya Sagar, 1981 are known to occur in the seas around India (Day 1877, Munro 1955, Norman 1935, Rao 1977, Dutt and Vidya Sagar 1981, Nanda and Ramamoorthi 1982, Fischer and Whitehead 1974, Waples 1983). Dutt and Vidya Sagar (1981) reported S. isarankurai from India on the basis of material from Visakhapatnam and Kakinada, but did not provide any description. Later Nanda and Ramamoorthi (1982) reported this species again as a new record from India on the basis of one specimen from Porto Novo. While studying the taxonomy and biology of lizardfishes from the west coast of India, we collected several specimens of S. isarankurai. As there is no earlier report from the western Indian Ocean and alo due to the fact that there is no detailed description of the species based on adequate samples, it was felt necessary to provide information to understand the intraspecific variations if any, and also for easier identification of the species.

Specimens were collected from the catches of trawlers operating at a depth of 20-25 m off Mangalore, Malpe, Bhatkal and Karwar on the mid-west coast of India. Morphometric and meristic data were recorded following Hubbs and Lagler (1958). Colour was noted from fresh specimens. Standard length (SL) was measured from tip of snout to the end of vertebral column. A total of 24 morphometric characters and 8 meristic characters were recorded. The different body proportions were expressed in percentage of SL or head length along with their range and mean to facilitate better comparison.

Material examined: 31 males of length range 55-101 mm (SL) and 22 females of 51-116 mm. Description: B. 14-15 (14); D. 11-13 (12); A. 10-12 (11); P1. 12-13 (13); P2. 9; L1. 45-49 (47); L tr. 4-5/6; Vertebrae 45-47 (45.5).

As percentage of standard length: Head length 22.4-25.5 (23.8): snout length 4.5-6.0 (5.2); eye diameter 4.1-5.8 (4.9); interorbital distance 3.3-5.2

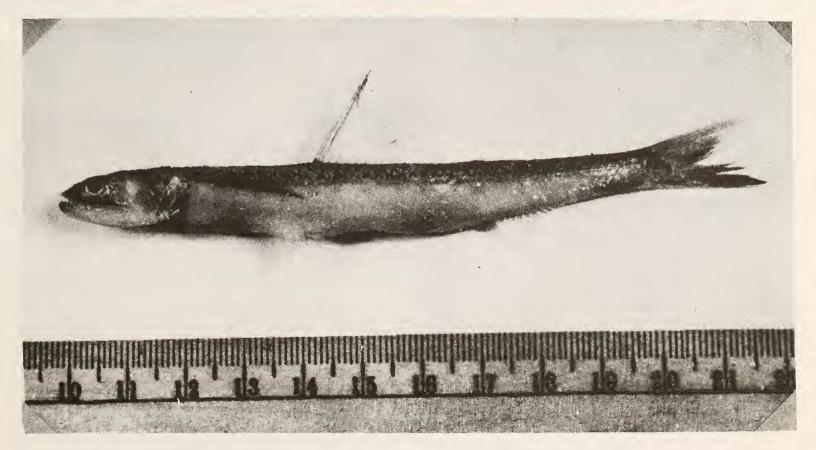


Fig. 1. Saurida isarankurai Shindo and Yamada 1972

(4.1); post-orbital length 12.8-14.9 (13.8);premaxillary length 13.8-17.4 (15.7). Distance from snout tip to origin of dorsal fin 41.5-48.6 (44.5); anal fin 71.8-79.7 (74.9); adipose fin 77.6-85.5 (82.0); pectoral fin 22.2-28.1 (25.7); pelvic fin 35.4-42.0 (39.2). Greatest body depth 10.5-13.3 (11.9); depth at pelvic fin origin 8.8-13.0 (11.2); depth at anal fin origin 8.5-11.7 (10.1); dcpth at caudal peduncle 5.8-7.4 (6.6). Height of dorsal fin 20.5-25.6 (22.9); dorsal base 11.8-14.4 (13.3); pectoral length 15.8-20.8 (18.3); pelvic length 15.0-19.1 (16.8); anal height 11.6-15.2 (13.0); anal base 8.4-13.3 (10.4); length of upper caudal lobe 17.9-23.6 (20.6). Distance from dorsal fin origin to adipose fin origin 29.6-40.6 (37.5); pelvic fin origin to anal fin origin 32.2-38.0 (36.0).

As percentage of head length: Snout 20.0-25.5 (22.0); eye diameter 17.0-23.8 (20.7); interorbital distance 13.5-21.8 (17.3); post-orbital length 53.1-60.6 (56.6); premaxillary length 60.6-72.2 (66.2); pectoral length 65.4-87.3 (77.1); pelvic fin length 63.6-80.0 (71.1).

Body elongate and cylindrical, head depressed. Lower jaw longer than upper jaw and visible from above when mouth is closed. Caniniform teeth in several rows in both jaws; palatine teeth caniniform in two narrow bands on each side, the inner band shorter than the outer. Second dorsal ray longest and equals head length. Pectoral tip extending well beyond origin of pelvic. Adipose dorsal fin above posterior portion of anal. Lower caudal lobe longer than upper lobe.

Colour: Dorsal side and upper flanks brownish mottled with grey, lower flanks and belly silvery white. A row of 8-10 indistinct dark spots along sides. Dorsal fin brownish yellow with scattered black pigments; its anterior upper corner dark. Upper part of pectoral fin dark, lower part white. Upper lobe of caudal yellowish with black pigment spots, lower lobe blackish, pelvic and anal fins without markings.

Distribution: West Central Pacific, coasts of India through Gulf of Thailand.

S. isarankurai forms a minor fishery during November to May along the Karnataka coast. It constitutes one of the components of the trawler catches operated at a depth of 20-50 m, comprising Squilla, crabs, juvenile nemipterids, Upeneus spp., Platycephalus spp. etc. Their catch per boat varied from 2 to 40 kg during November-May at Mangalore, Malpe, Bhatkal and Karwar.

S. isarankurai can be easily distinguished from other known Indian Saurida spp. by longer lower jaw visible from above when mouth is closed, longer pectoral fin extending beyond pelvic origin and reaching almost base of dorsal fin origin and longer lower lobe of caudal than upper lobe.

The present description of S. isarankurai from the west coast of India fully agrees with the same species from Gulf of Thailand originally described by Shindo and Yamada (1972) except the difference in the length of pectoral fin. In the present observation the pectoral length is 18.3% of SL instead of 19.1-23.8% as recorded by Shindo and Yamada. The pectoral fin length of 18.2% of SL as given by Nanda and Ramamoorthi (1982) for Porto Novo specimen is identical with the present observation. This indicates that specimens of S. isarankurai from Indian waters have slightly shorter pectoral fin than those from the Gulf of Thailand.

ACKNOWLEDGEMENTS

We thank Dr V.S.R. Murty, Senior Scientist, C.M.F.R. Institute, Kakinada and Dr N. Jayabalan, Assistant Professor, College of Fisheries, Mangalore for their valuable suggestions.

August 7, 1991

C. MUTHIAH B. NEELAKANTAN

REFERENCES

BLOCK, M.E. (1795): Naturgeschichte der auslandischen Fische 9: 112, pl. 430 (type locality: Malabar).

Day, F. (1875-1878): The Fishes of India. London.

DUTT, S. & VIDYA SAGAR, J. (1981): Saurida pseudotumbil - A new species of Lizardfish (Teleostei: Synodidae) from Indian coastal waters. Proc. Indian natn. Sci. Acad. B 47 (6): 845-851.

FISCHER, W. & WHITEHEAD, P.J. (eds.) (1974): FAO species identification sheets for fishery purposes. Eastern Indian Ocean (fishing area 57) and Western Central

Pacific (fishing area 71) (FAO: Rome) Vol. IV.

Hubbs, C.L. & Lagler, K.F. (1958): Fishes of the Great Lakes Region. Bulletin of the Cranbrook Institute of Science 26:1-218.

Munro, I.S.R. (1955): The marine and fresh water fishes of Ceylon. Dept. of External Affairs, Canberra.

NANDA, R.R. & RAMAMOORTHI, K. (1982): Saurida isarankurai Shindo & Yamada, Pisces: Synodidae: A new record from India. Matsya 8: 67-68.

NORMAN, J.R. (1935): A revision of the lizardfishes of the

genera Synodus, Trachinocephalus and Saurida. Proc. Zool, Soc. London 1935: 99-135.

NORMAN, J.R. (1939): Fishes. The John Murray Expedition, 1933-34. Scientific Reps. 7: 23-24.

Quoy, J.R.C. & GAIMARD, P. (1824): Voyage autour du monde execute sur les corvettes de S.M. "L' Uranie" et" La Physicienne' pendant les annees 1817-20. Poissons. Pillet Ame, Paris.

RAO, K.V.S. (1977): Systematics and comparative osteology of Indian Lizardfishes (Saurida spp.). Indian J. Fish 24: 143-171.

RICHARDSON, J. (1848): Zool. 'Erebus' and 'Terror', Fish. p. 138, pl. li. figs. 1-6.

SHINDO, S. & YAMADA U. (1972): Descriptions of three new species of the lizardfish genus *Saurida*, with a key to its Indo-Pacific species. *Uo 11*: 1-13, *12*: 1-14.

VALENCIENNES, A. (1849): Hist. Nat. Poiss. 22: 499 (type: Salmo tumbil Bloch).

Waples, R.S. (1983): Synodontidae. *In:* Fischer, W. and Bianchi (eds). FAO species identification sheets for fishery purposes. Western Indian Ocean (fishing area 51) (FAO: Rome) Vol. IV.

31. RECORD OF NEW LARVAL PARASITOIDS OF *LYMANTRIA BEATRIX* STOLL. (LEPIDOPTERA: LYMANTRIDAE)

Y.P. Singh (1982, Punjab Hort. J. 22: 113-114) observed mango Mangifera indica orchards being infested by Lymantria beatrix Stoll. in Saharanpur district of Uttar Pradesh. The present study was undertaken during September-October 1988 to find out the parasitoids associated with this pest. 100 larvae were collected from the infested orchard and kept for rearing under laboratory conditions. Each larva was kept in a glass vial and was provided with fresh tender

leaves of mango as food. Four larval parasitoids were observed, viz. Echthromorpha wotulatoria Fabr. (3%), Ephialtes instagator var. poesia Cam. (5%), Carcelia kockiana Tours. (9%) and Carcelia octava Bam. (7%).

We thank Dr Pratap Singh, Forest Entomologist, F.R.I., Dehra Dun, for identifying the parasitoids.

Y.P. SINGH V. KUMAR

November 19, 1990

32. SOME BUTTERFLIES OF NARCONDAM ISLAND (ANDAMAN)

The butterflies of the Andaman & Nicobar islands were studied in detail by Ferrar (JBNHS 47: 470-491, 1948). Subsequently I published a note (JBNHS 79: 702-704) on the butterflies of the Andaman Islands. Ferrar stated that certain areas in the Andamans remained to be completely or partially worked and in the former he had included the Narcondam island. Ferrar further writes "Narcondam and Barren Islands lie some 60 miles to the east of Great Andaman. The former with its unique Hornbill may also possess some unique butterflies". Therefore, a small collection done by SAH in March-April 1972 during his survey of the Narcondam hornbill is significant. The specimens were identified as below:

Family: DANAIDAE

Tirumala limniace Cramer

Recorded by Ferrar from Nicobars, Great Cocos and Port Blair. A single specimen was collected near

camp on 25 March 1972.

Family: PIERIDAE

Cepora nerissa lichenosa M.

Dry season form collected inside the undergrowth near camp on 19 March. Earlier recorded by SAH from Great Andaman.

Family: NYMPHALIDAE Cynthia erota pallida Stg.

Two specimens collected on the way to summit along a stream and two specimens near the camp on 26 March.

Family: LYCAENIDAE Loxura atymnus prabha M.

Acommon butterfly of the island. Aspecimen was collected on 11 April 1972.

N. CHATURVEDI August 6, 1991 S.A. HUSSAIN